

c.) Remarks

Claim 1 has been amended in order to recite the present invention with the specificity required by statute. Additionally, claims 19-24 and 26 are amended for better idiomatic and claims 12-17, 22-27 and 56-57 are amended to maintain their dependency. The subject matter of the amendment is found in the specification as filed, *inter alia*, at original claim 25. Accordingly, no new matter has been added.

Regarding various initial formal matters, the Examiner notes that claims 3-11, 21 and 28-71 are withdrawn from prosecution, that no certified copies of the Japanese priority documents are filed and that the drafter has objected to the drawings of record. In response, claims 3-11, 28-55 and 58-71 are cancelled in order to reduce the issues. Claim 21, which is linked to generic claim 18 (c.f., office action at page 2, lines 2-4) has been maintained, as have claims 56-57.

Regarding the certified copies of the priority documents, such are currently being obtained and will be forwarded to the Examiner as quickly as possible. Concerning the objection to the informal drawings filed January 29, 2002, Applicants wish to point out that formal drawings have already been filed herein on January 8, 2003. Clarification and acknowledgment of the same is respectfully requested in the next Patent Office communication.

Claims 1, 2, 12-20 and 22-27 are rejected under 35 U.S.C 112, first paragraph, as containing subject matter which was not adequately described in the specification as filed so as to enable one skilled in the art. In particular, the Examiner states that the FERM BP-7573 hybridoma cell line is essential to the claimed invention, it must be readily available to the public. Although there is no basis in fact set forth in the Office Action for this rejection, Applicants have enclosed Deposit Declaration averring availability and maintenance of the strain, so as to reduce the issues.

The Office Action also states that the specification does not reasonably enable the breadth claimed for methods of inducing differentiation of embryonic stem cells, especially from other animals, as set forth from page 7, line 1 to page 9, line 9. In response, Applicants wish to point out that those of ordinary skill are well-aware of such techniques and the applicability of the same to disparate animals. See, for example, PNAS, 99, 1580-1585 (2002), which shows that differentiation of primate (monkey) embryonic stem cells into dopaminergic cell is induced according to the very method disclosed in the present specification as being applied to a mouse.

Claims 2, 12-20 and 22-27 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In response, these matters have all been attended to by the above amendment, as kindly suggested by the Examiner.

As to the term "substantially" in claim 27, however, such is clearly defined at specification pages 45-46 and is readily understood by those of ordinary skill. Applicants respectfully wish to point out that 739,029 U.S. Patents issued from 1976 to date containing the term "substantially" in their claims.

Claims 1, 2, 14, 24, 26 and 27 are rejected under 35U.S.C §102(b) as anticipated by van Inzen (Biochim et Biophys Acta (1996) 1312:21-26) and Claims 1, 2, 12-15 and 25-27 are also rejected as anticipated by Kalyani et al. (J. of Neurosci. (1998) 18:7856-7868). The Examiner's bases for this rejection are set forth from page 11, line 1 to page 13, line 8.

This rejection is respectfully traversed. However, prior to setting forth their bases of rejection, Applicants would like to briefly point out the salient features of the present invention and, *inter alia*, its patentable nature over the prior art.

As currently recited in amended claim 1, the present invention relates to a

process for differentiating an embryonic stem cell into an ectodermal cell in which retionic acid is absent. In contrast, Inzen discloses neuronal differentiation of totipotent embryonic stem cells using retionic acid treatment (see Abstract).

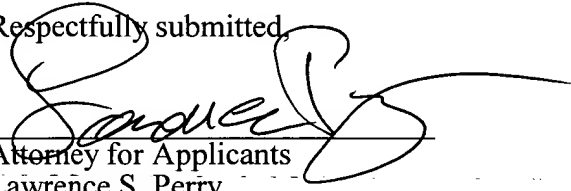
Kalyani relates to a method for inducing differentiation of a stem cell derived from an adult. However, the present invention relates to inducing differentiation of an embryonic stem cell. In that regard, page 7857, 1st column, "Materials & Methods" in Kalyani (pointed out by the Examiner) discloses separating stem cells from spinal cords of rat embryos (i.e., adult), not from embryonic stem cells. As understood (see, e.g., Cell, 100, 143-155 (2000) at page 143, 2nd paragraph) the stem cells of Kalyani differ in kind from the embryonic stem cells of the present invention

In view of the above amendments and remarks, Applicants submit that all of the Examiner's concerns are now overcome and the claims are now in allowable condition. Accordingly, reconsideration and allowance of this application is earnestly solicited.

Claims 1, 2, 13-24, 26, 27, 56 and 57 remain presented for continued prosecution.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

Respectfully submitted,



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